Anna Held a Victim of "Tight Lacing?"

Stricken with Multiple Myeloma, a Rare, Mysterious and Fatal Disease of the Marrow of the Bones

BY a strange and cruel freak of fate Anna Held, gayest of comediennes, has been stricken down by one of the rarest, most agonizing and deadly diseases known to science.

This disease is called "multipel myeloma". The second word is formed from two Greek words meaning "marrow" and "tumor," while the "multiple" refers to its tendency to attack many parts of the body. The disease consists, in its first stage, in the formation of tumors within the bone marrow, which rapidly disintegrate the bone and then poison the whole blood stream.

Only fifty-two cases of multiple myeloma have been recorded by medical science. All of them proved fatal. Death may occur at any time, but the disease is not remarkably rapid and its course frequently runs for a year. In one memorable case recorded by Dr. Kahler, who made a special study of the disease, the patient lived from 1887 to 1897. Nothing like that length of time has ever been noted since. The patient in this instance was a physician.

The cause of myeloma has hitherto been a mystery like that of cancer. Indeed, it is akin to cancer in its character. It is sometimes described as a form of sarcoma, that is to say, a tumor consisting largely of giant cells. The scientific theories concerning cancer generally agree that it is a disordered cell growth; that it occurs at parts of the body where strain is greatest, and that it is induced by habits of life such as wearing of tight clothing, smoking, the use of excessively hot food and drink, etc.

What then was it that laid the seeds of multiple myeloma in Anna Held? Medical scientists hope that some valuable new light may be thrown on the mysterious disease from this case, as medicine has made great advances since the last case was studied. It is reasonable to believe that the immediate cause lies in some habit of daily life, such as those already suggested, combining with some natural predisposition of the organism. Tight clothing is one of the commonly assigned causes of cancer, and it is suggested in medical circles that tight lacing of corsets was most probably the principal exciting cause of poor little Anna Held's strange affliction.

She was for many years quite famous as the most tightly laced woman on the stage. Her plump, attractive little figure, laced in at the waist until the hips jutted out almost horizontally, was very widely admired. No such concavity between busts and hips was ever seen on a woman. She had the "hourglass figure" in its extremest form. In order to produce this effect it was necessary to use great force in lacing. Her waist is said to have been squeezed down to a circumference of eighteen inches.

How pathetic that the artifices practised by this gay little butterfly of stage life to attract the admiration of thoughtless men should later prove the cause of agonizing suffering! For over twenty years Anna Held practised daily and nightly tight lacing. In addition she led a life or great excitement and nervous strain, and this would be an aggravating factor in a cell growth disorder.

The medical theory is that the tight lacing congested the great blood vessels situated in the region of the hips and poisoned the blood stream in the lower part of the body. This in turn exercised an injurious reflex action on the bone marrow, which is one of the most important blood-making organs of the body, and finally helped to produce myeloma.

It is significant that later examination proved that the pelvic bone was the most deeply disordered by the disease in Anna Held's case.

Anna Held was stricken with her illness early last Winter. She had undoubtedly been appearing on the stage months after it reached a severe form. While she was performing at Milwaukee last January she broke down completely and her sufferings became cruel.

In myeloma the marrow of the bones produces malignant cells of giant size which pass through the bone substance into the blood and gradually choke up the stream of life, causing inability to assimilate food, physical powerlessness, and finally death. The marrow is known to be the chief blood-making organ of the body, producing most of the red corpuscles and some of the white, which pass out into the blood stream through minute channels in the bone.

The giant cells of myeloma take the place to a great extent of the red corpuscles, and without red corpuscles there can be no living.

One of the results of the diffusion of the malignant cells is that the bones become soft and spongy and break at the slightest shock.

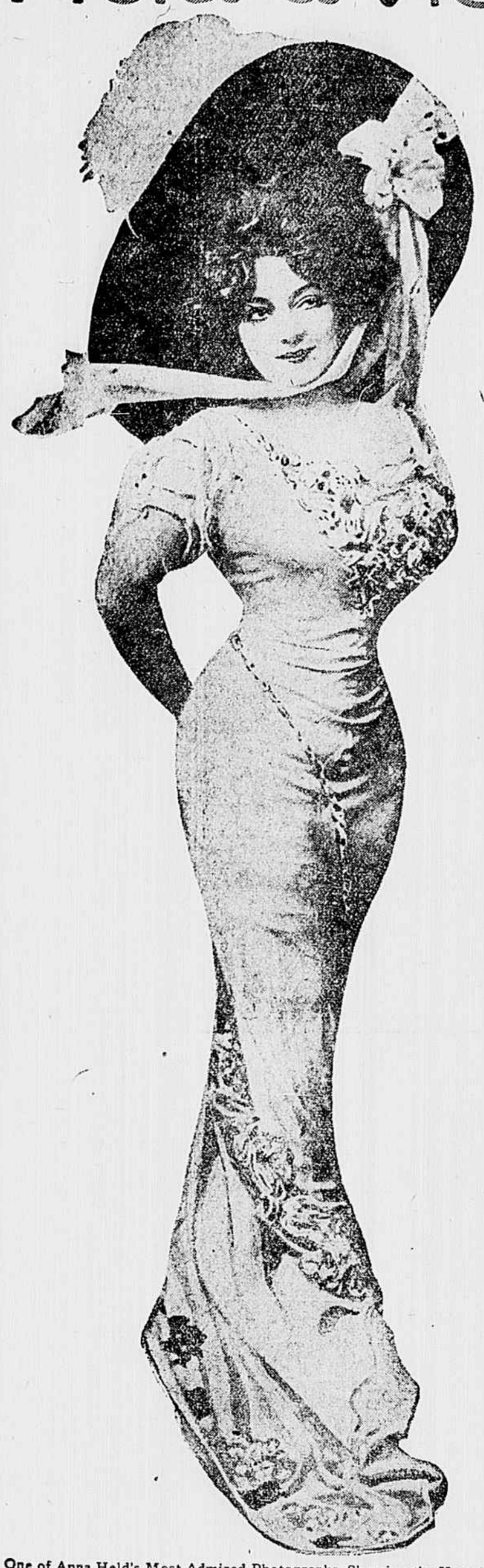
The disease spreads from one bone to another by the process of "metastasis." The malignant cells are believed to be carried by the blood, and in this way invade the marrow of unaffected bones.

Anna Held showed all the most painful symptoms of the disease. Her bones cracked at the least movement, her joints became loose, and she suffered the most exquisite pain at the slightest jarring. She was unable to bear the least pressure without suffering unbearable torture. Her affliction soon reached such a point that it was impossible for her to sit down. After that it became painful for her even to lie down. It was necessary to place her on piles of the softest down quilts.

Recent examination has shown that her bones must have been broken or cracked in several places through accidental contact, owing to their extreme brittleness, during the early period of her illness.

She became pitiably emaciated. Her weight sank rapidly from 115 pounds to 84 pounds. She is a little woman, under five feet in height, and her original weight represented a fair degree of fleshiness.

In its early stages her strange disease was a puzzle to all the physicians who were called in to attend her. The most common opinion was that she was suffering from tuberculosis of the spine, although several physicians found traces of pernicious anaemia. Others attributed her condition to obscure forms of cancer and diabetes.



One of Anna Held's Most Admired Photographs, Showing the Hourglass Figure and Tight Lacing for Which She was Noted.

She was advised to go to Asheville, N. C., for rest, fresh air and recuperation. She was literally carried to the Southern resort and spent about three months there. She showed no improvement, spent her days in a helpless, pitiable condition, and was plainly on the point of death.

Finally, as a last resort, she was brought back to New York in the hope that the scientific resources of the great metropolis might snatch her from the grave.

Dr. Donald McCaskey, of No. 24 West Fifty-ninth street, was one of the specialists summoned to attend her. He was at first, like all the other physicians, greatly puzzled to decide what was the matter with her. In describing the case afterward he admitted that at first he thought she had been suffering from pleurisy, because of the marks of irritation he found above the base of the right lung. This was perhaps the strangest conjecture that had been yet made concerning the nature of this strange disease. But further investigation failed to reveal any of the signs of pleurisy.

Finally, in consultation with several physicians and surgeons, Dr. McCaskey decided that Miss Held was suffering from multiple myeloma. Not one of the physicians who examined her had ever had a case of this disease within his own practice. It was therefore not surprising that so much time was lost in deciding its nature.

Two factors, among many others, were essential in establishing the diagnosis of this condition. One was the examination of the blood and the other the X-ray pictures taken.

The blood examination showed that the red corpuscles were about one-half normal in quantity and the white corpuscles three times normal. Especially significant was the fact that the hemoglobin, which carries oxygen to the tissues, was only one-half normal.

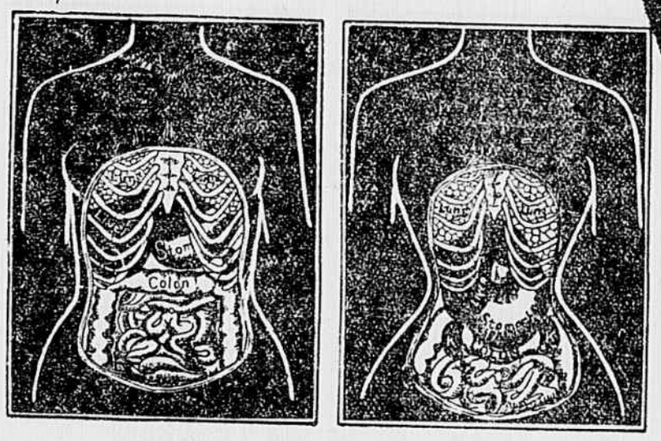
This condition showed a pernicious anaemia, but the blood contents were not the same as in ordinary pernicious anaemia. It was an anaemia secondary to some other cause, and that cause was shown to be myeloma.

And then came the X-ray pictures. These revealed Miss Held's bones as mottled in appearance, in contrast to the smooth, solid appearance of normal bones. The X-ray pictures of the actress's bones, interpreted by the expert eye, meant that they were in a soft, spongy condition, without their normal density. This was the result of the myeloma, the tumor within the marrow eating away the substance of the bone.

The pictures clearly proved that the anaemia shown by the blood count was due to the condition within the bones. Every disease but myeloma was now eliminated.

The bones, in Anna Held's case, shown to be most deeply affected, were the pelvis, spine, ribs, neck, shoulder blades, collar bone, upper arms, legs and, to some extent, the skull.

The great question then was, What could be done to save or relieve the patient? She was suffering the most intense agony and was clearly fast passing to her death. Several of the remedies recommended in this disease—massage, local hot baths, stimulating diet and various drugs—had been tried without any effect.



How Tight Lacing as Practiced by Anna Held Forces a Woman's Vital Organs Out of Their Natural Position. The Diagram on the Left Shows the Visceral Organs in Their Natural Position. The Diagram on the Right Shows How the Stomach, Liver, Intestines and Other Organs Are Forced Far Below That Position by Tight Lacing

Poor Anna Held Was Proud of Her Tight Lacing and This Photograph Was Taken to Show How She Squeezed Her Waist to Unnatural Smallness.

Anna Held's Graceful Jewel-Laden Arm Which Has Now Withered Away from the Effects of Her Strange Bone Marrow Disease.

Dr. McCaskey then decided on a transfusion of blood as the only hope of restoring the patient's fading vitality. A healthy, stalwart young man, Ernest Lane, married and a chauffeur by occupation, volunteered to give the necessary blood.

The surgical part of the transfusion was directed by Dr. James F. Grattan, and the laboratory technique was furnished by Dr. James G. Dwyer. The median vein in the donor's left forearm was opened and the corresponding vein in Anna Held's right forearm.

One end of the severed vein in each person was clamped to stop the flow of blood. The open end of the man's vein was then attached to the open end of Anna Held's vein by tiny gold wires bent into the form of an arc.

The wires have sharpened ends that enter the walls of the blood vessels and hold them together until the operation is completed. A regulating device was placed over the donor's vein, enabling the surgeons to stop or reduce the flow of blood at any moment in case dangerous symptoms should show themselves.

The technique of this operation was extremely elaborate and delicate and an adequate description would fill a book. Blood transfusion is always an extremely difficult and doubtful operation. The blood of one person often refuses to mingle with that of another. The slightest blood-clot or air bubble or the tiniest piece of foreign matter carried into the circulatory system of the recipient is bound to have an extremely dangerous and probably fatal effect. In Anna Held's nearly lifeless condition it would almost certainly have meant death.

The blood was allowed to flow slowly for half an hour. About twenty-five ounces of blood was transfused, equal probably to a quarter of the patient's blood weight.

The transfusion was apparently successful and the severed veins were united again in their normal position.

Immediately after this, however, signs of severe surgical shock showed themselves in the patient. She developed a marked chill and threatened to collapse. Hot cloths were applied and the internal and other treatment usual in such cases was given.

At the end of a few hours she gratified her anxious physician by recovering from the surgical shock. Her color improved, and she fell into a refreshing sleep.

On awakening she ate food with better appetite than she had shown for several months. It was evident that the blood transfusion was a success, at least temporarily, and that it was helping her to assimilate nourishment.

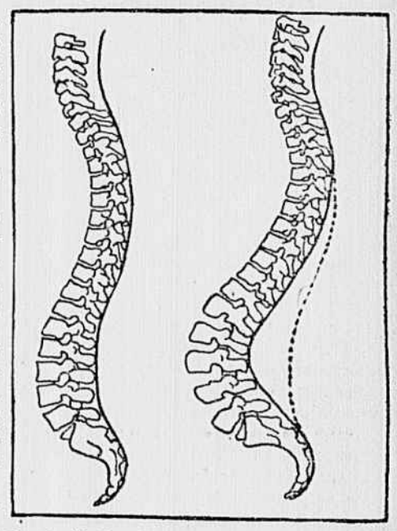
On the following day her physician began to give her daily baths of ultra-violet light. For this purpose he used a lamp giving 2,000 to 8,000 Angstrom units of wave length. The object of this was to give the blood the nourishment it normally receives from the actinic rays of the sun. Under the rays of the lamp the patient lying helpless on her bed actually developed a tint resembling sunburn.

At the end of a week the improvement in Anna Held's condition was, according to her physician, still evident. In discussing her condition Dr. McCaskey said:

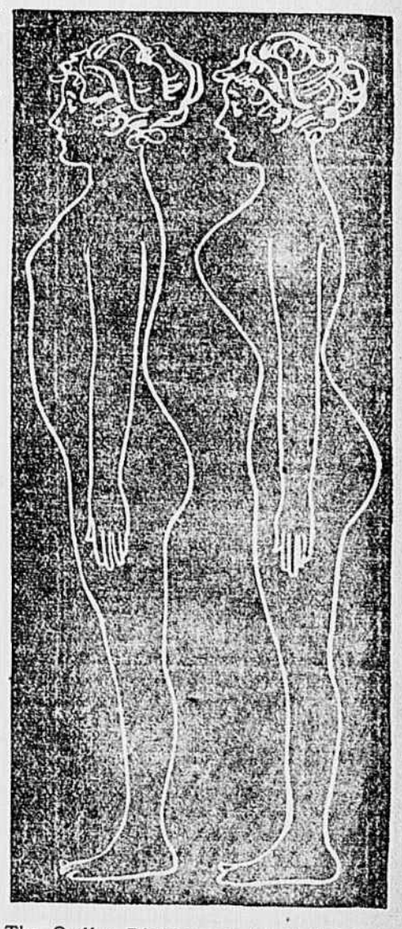
"In blood transfusion, I believe, we have found the only thing that offered any hope of saving Miss Held's life. Do not suppose that I am promising a permanent cure. No case of the disease has ever been cured, and it would be unreasonable to suggest we have found one.

"The transfusion enriches her blood and enables her to assimilate nourishment and to fight the poison that is invading her system. We do not suppose that it affects the original cause of the disease within the bone marrow.

"I intend to give her blood transfusion as often as her condition requires it. It is the only thing that seems able to prolong her life, and no effort will be spared to save her. If possible, the same man will be used, as his blood appears to harmonize with her system perfectly, but in any case we can always find some one."



On the Left a Woman's Backbone in Normal Position, on the Right a Backbone Distorted Out of Line by Tight Lacing.



The Outline Diagram on the Left Shows a Woman's Figure in Normal Outline, the One on the Right How the Normal Proportions Are Profoundly Altered by Tight Lacing.